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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,801	12/08/2003	Tatsuro Nagahara	FN4104US-CIP	8923
7590 11/16/2004 Alan P. Kass Clariant Corporation 70 Meister Avenue Somerville, NJ 08876			EXAMINER LEE, SIN J	
			ART UNIT 1752	PAPER NUMBER

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/728,801

Applicant(s)

NAGAHARA ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/806,852.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagahara et al (JP 2000-181069 and its machine-assisted English translation provided by Japan Patent Office).

Nagahara teaches a photosensitive polysilazane composition which contains a polysilazane and a photoacid generating agent (see abstract of the English translation). According to PTO's on-site oral English translation, in [4] and [5], Nagahara teaches a photosensitive polysilazane composition in which the polysilazane is mainly a polysilazane having a number average molecular weight of 100 to 100,000 that contains the skeleton represented with the formula  $-(SiR^4(NR^5)_{1.5})_n-$  in which  $R^4$  is a methyl group or phenyl group, and  $R^5$  is a H atom. Nagahara's formula  $-(SiR^4(NR^5)_{1.5})_n-$ , in which  $R^4$  is a methyl group or phenyl group, and  $R^5$  is a H atom, teaches present polysiloxazane that contains as its main repeating unit  $-(RSi(NR^6)_{1.5})-$  (because present R can be an alkyl group or an aryl group and present  $R^6$  can be a H atom) as well as present polysilazane that mainly contains the skeleton of present formula (II) (because present  $R^4$  can be an alkyl group or an aryl group and present  $R^5$  can be a H atom).

Nagahara also teaches that a peroxide such as t-butylperoxy benzoate can be used as his photoacid generator (see [7] and [8] of machine English translation).

Therefore, the prior art teaches present inventions of claims 1-6.

Nagahara teaches (see [9] and [10] of machine English translation) the use of a sensitizing dye such as coumarin, ketocoumarin and their derivatives and thiopyrylium salt in his photosensitive polysilazane composition. Thus, the prior art teaches present inventions of claims 7 and 8.

In [11] and [12], Nagahara furthermore teaches that an oxidation catalyst such as propionic-acid palladium can be used in his photosensitive polysilazane composition. Therefore, the prior art teaches present inventions of claims 9 and 10.

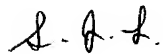
Nagahara teaches ([0010] and [0011]) a process of forming patternized polysilazane film by imagewise irradiating light and performing subsequent development. Nagahara furthermore teaches that the patternized polysilazane film can be converted into a silica system ceramic coat by being left in the ambient atmosphere or by calcinating. Thus, prior art teaches present inventions of claims 11-19.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

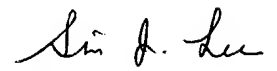
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee  
October 1, 2004



Sin J. Lee  
Patent Examiner  
Technology Center 1700